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09/858,315	05/15/2001	Edward M. House1	10432/62	3099

7590 07/26/2005  
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EXAMINER

THOMPSON, JAMES A

ART UNIT PAPER NUMBER

2624

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/858,315

Applicant(s)

HOUSEL ET AL.

Examiner

James A. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 14 March 2005 have been fully considered but they are not persuasive. Applicant's arguments are based on the present amendments to the claims, and not to the claims as filed immediately prior to the previous office action, dated 09 December 2004. The rejections of the present claims based on prior art is given in detail below. The new grounds of rejection are necessitated by the present amendments to the claims.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-10, 12-19, 21-24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livingston (US Patent 6,621,590 B1) in view of Lobiondo (US Patent 5,287,194).

**Regarding claims 1 and 15:** Livingston discloses a printing system (figure 1 of Livingston) comprising at least one input source (figure 3a(64("Paper Source")) of Livingston) for storing a medium prior to printing (column 5, lines 20-22 of Livingston); and at least two output destinations (figure 3a(64("Output Bin")) of Livingston) for holding or processing the

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medium after printing (column 5, lines 19-23 of Livingston). One of a plurality of paper sources (media) and one of a plurality of output bins (destinations) can be selected for a page of the overall print job (column 5, lines 19-26 of Livingston). Therefore, at least one input source for storing a medium and at least two output destinations for holding or processing the medium after printing are inherently a part of the overall printing system. Otherwise, there is no source of paper media to print upon and no output destinations to send the print medium to be held or processed.

Livingston further discloses a user interface (figure 1(28) of Livingston) to support a user's entry of a command (column 3, lines 20-23 of Livingston) comprising at least a media identifier (paper source) and an output destination indicator (output bin), the command supporting selection of one of the output destinations (column 5, lines 19-23 of Livingston) for any sheet of a print job (column 5, lines 13-15 and lines 17-23 of Livingston) in said at least one input source prior to the printing (column 3, lines 51-55 of Livingston); and a central processing unit (figure 1(14) of Livingston) configured to utilize a media identifier (figure 3(84) and column 5, lines 13-15 of Livingston), an output destination indicator (figure 3a ("Target Printer") and column 5, lines 18-23 of Livingston), and a defined number of sheets for each output set of a print job (column 3, lines 51-55 of Livingston) to achieve a desired appearance characteristic of sheets for the output set (column 5, lines 15-23 of Livingston).

Livingston does not disclose expressly that said central processing unit specifies a balanced media exit pattern that

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distributes media for the print job in a generally equal manner between different output destinations.

Lobiondo discloses specifying a balanced media exit pattern (column 4, lines 16-19 of Lobiondo) that distributes media for the print job in a generally equal manner between different output destinations (column 4, lines 19-25 and lines 30-34 of Lobiondo).

Livingston and Lobiondo are combinable because they are from the same field of endeavor, namely the control, processing and specification of print jobs. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to generally evenly distribute the print job, and thus provide a balanced media exit pattern for the print job, as taught by Lobiondo. The motivation for doing so would have been that each printer has different characteristics and capabilities than other printers (column 3, lines 64-68 of Lobiondo), and thus can process different portions of the overall print job better. This is particularly advantageous when a user alters different pages in different ways (column 5, lines 1-7 and lines 18-26 of Livingston). One of ordinary skill in the art at the time of the invention would clearly see the advantage in a distributed approach to printing, as taught by Lobiondo, when there is a variety of possible printing conditions based on the user input in the system taught by Livingston. Therefore, it would have been obvious to combine Lobiondo with Livingston to obtain the invention as specified in claims 1 and 15.

Further regarding claim 15: The printing system of claim 1 performs the method of claim 15.

**Regarding claims 2-3 and 17-18:** Livingston discloses that said command comprises an output-destination-control command

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(column 5, lines 22-26 of Livingston) including a media tag as the media identifier (figure 3a(64("Paper Source")) of Livingston), an exit name as the destination identifier (figure 3a(64("Output Bin")) of Livingston) (column 5, lines 19-23 of Livingston), and a defined number of pages associated with the media tag and the exit name (column 5, lines 11-15 and lines 20-23 of Livingston). The identification of the paper source corresponds to the media tag which identifies the input media. The output bin identifier corresponds to the exit name which identifies the destination. Selecting the paper source and output bin (column 5, lines 20-23 of Livingston) for individual pages (column 20-23 of Livingston) defines the number of pages associated with said media tag and said exit name.

**Regarding claims 4 and 19:** Livingston discloses that said command comprises an alternate media command that requests the incorporation of an alternate media into a defined portion of the print job (column 3, lines 51-53 and column 5, lines 19-22 of Livingston). The user can select a different paper source (column 5, lines 19-22 of Livingston), and thus a different media, which is a media that is an alternative to the default media (column 3, lines 51-53 of Livingston).

**Regarding claim 6:** Livingston discloses that said media identifier includes at least one of a primary (default) media identifier and an alternate media identifier for the print job (column 3, lines 51-53 and column 5, lines 19-22 of Livingston). The user can use a default setting or an alternate setting (column 3, lines 51-53 of Livingston) for the media to be used for the print job (column 5, lines 19-22 of Livingston).

**Regarding claims 7 and 21:** Livingston discloses that said central processing unit supports association of the media

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identifier with a corresponding input source that stores a particular medium (column 5, lines 19-22 of Livingston). Selection of a particular source or size of paper (column 5, lines 19-22 of Livingston) clearly associates the media identifier, namely the software signal element selected in the user interface (figure 3a(64("Paper Source")) of Livingston), with the actual paper source and/or size that is stored and used for printing.

**Regarding claims 8 and 22:** Livingston discloses that said command has a primary command format that includes the media identifier (figure 3a(64("Paper Source")) of Livingston), a request identifier (figure 3a(58) of Livingston), and a page identifier (figure 3a(84) of Livingston), where the media identifier, the request identifier, and the page identifier are associated with each other for application to at least a portion of the print job (column 5, lines 13-15 and lines 20-26 of Livingston). When the media identifier (figure 3a(64("Paper Source")) of Livingston) is selected (column 5, lines 20-23 of Livingston) in the user interface (figure 3a of Livingston), a pull-down menu (figure 3a(84) of Livingston) is used to identify the page whose attributes are to be modified (column 5, lines 13-15 of Livingston). When the page is selected, the request identifier (figure 3a(58) of Livingston) is used to select what changes to make (column 5, lines 22-26 of Livingston).

**Regarding claims 9 and 23:** Livingston discloses that the command has a secondary command format that includes the media identifier (figure 3a(64("Paper Source")) of Livingston), the output destination indicator (figure 3a(64("Output Bin")) of Livingston), a request indicator (figure 3a(58) of Livingston), and a page quantity (figure 3a(84) of Livingston), where the

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media identifier, the output destination indicator, the request indicator, and the page quantity are associated with each other for application to at least a portion of the print job (column 5, lines 13-17 and lines 20-26 of Livingston). When the output destination (figure 3a(64) ("Output Bin")) is selected, in the user interface (figure 3a of Livingston), a pull-down menu (figure 3a(84) of Livingston) is used to identify the page or pages whose attributes are to be modified (column 5, lines 13-17 of Livingston). When the pages have been selected, the request identifier (figure 3a(58) of Livingston) is used to select what changes to make to said pages (column 5, lines 22-26 of Livingston). The page quantity is simply the number of specifically selected pages chosen in said pull-down menu. The media identifier is a part of said secondary command format since there must inherently be a print media source in order to print based on said selected attributes.

**Regarding claims 10 and 24:** Livingston discloses that said command comprises a print job request to route some fraction of an ordered media for the print job from the at least one input source to a selected output destination among the two or more output destinations (column 5, lines 13-15 and lines 17-23 of Livingston). Specific pages of the overall print job are selected (column 5, lines 13-15 of Livingston) to be routed from the at least one input source to an output destination that is specifically selected from among the two or more output destinations (column 5, lines 17-23 of Livingston).

**Regarding claims 12 and 26:** Livingston discloses that said command comprises selecting specific pages of an overall print job (column 5, lines 13-15 of Livingston), to be routed from the at least one input source to a specifically selected output



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destination (column 5, lines 17-23 of Livingston), wherein said selected output destination is different from the default output destination (column 3, lines 51-53 of Livingston). The media of said print job is arranged in a specific order, as evidenced by the selection of particular page numbers in the overall print job (figure 3a(84) and column 5, lines 59-61 of Livingston). Therefore, a first group of defined members of an ordered media is routed to the default output destination and a second group of ordered media, namely the specifically selected pages, is routed to another output destination, namely the specifically selected non-default output destination. Since this all occurs within a single overall print job, said first group and said second group belong to the same output set.

**Regarding claims 13 and 27:** Livingston discloses that said command comprises an output-destination-control command (column 5, lines 18-23 of Livingston) that selectively incorporates a new printed media command into the output-destination-control command (column 5, lines 13-23 of Livingston) if respective values of symbols for corresponding pages of the output set meet defined criteria (column 6, lines 60-62 of Livingston). A new print media and its output destination (column 5, lines 18-23 of Livingston) can be selected for particular pages by using a pull-down menu and page selector (column 5, lines 13-17 of Livingston). The selection of the new media and the output destination that corresponds with a particular page changes the values of the symbols denoting which media and output destination is desired for said particular pages (column 6, lines 60-62 of Livingston). The defined criteria for change is the selection of desired changes for particular pages (column 6, lines 60-62 of Livingston).

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**Regarding claims 14 and 28:** Livingston discloses that said command comprises an output-destination-control command (column 5, lines 18-23 of Livingston) that selectively incorporates an alternate media command (column 3, lines 51-55 of Livingston) into the output-destination-control command (column 5, lines 13-23 of Livingston) if respective values of symbols for corresponding pages of the output set meet defined criteria (column 6, lines 60-62 of Livingston). An alternate print media (column 3, lines 51-55 of Livingston) and its output destination (column 5, lines 18-23 of Livingston) can be selected for particular pages by using a pull-down menu and page selector (column 5, lines 13-17 of Livingston). The selection of an alternate media and the output destination that corresponds with a particular page changes the values of the symbols denoting which alternate media and output destination is desired for said particular pages (column 6, lines 60-62 of Livingston). The defined criteria for change is the selection of desired changes for particular pages (column 6, lines 60-62 of Livingston).

**Regarding claim 16:** Livingston discloses feeding the media to different output destinations (output bins) (column 5, lines 19-26 of Livingston). Therefore, it is inherent that some form of media feed instructions are created based on the pattern of media feeds. Otherwise, there is nothing to direct said media to different output destinations.

4. Claims 5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livingston (US Patent 6,621,590 B1) in view of Lobiondo (US Patent 5,287,194) and Mastie (US Patent 6,583,890 B1).

**Regarding claims 5 and 20:** Livingston in view of Lobiondo does not disclose expressly that said command comprises a non-printed media command that represents a request for incorporation of a blank or non-printed media into a designated portion of the print job.

Mastie discloses a non-printed media command that represents a request for incorporation of a blank or non-printed media into a designated portion of the print job (column 6, lines 58-60 and column 6, line 67 to column 7, line 2 of Mastie).

Livingston in view of Lobiondo is combinable with Mastie because they are from the same field of endeavor, namely the processing and formatting of print data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a blank or non-printed media command, as taught by Mastie, into the overall command taught by Livingston. Inserting a sheet either before or after a particular page in the print job would simply be another feature that can be selected in the user interface shown in figure 3(64) of Livingston. The motivation for doing so would have been to modify a print job so that said print job is consistent with a desired document framework (column 6, lines 58-63 of Mastie). Therefore, it would have been obvious to combine Mastie with Livingston in view of Lobiondo to obtain the invention as specified in claims 5 and 20.

5. Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Livingston (US Patent 6,621,590 B1) in view of Lobiondo (US Patent 5,287,194) and Farrell (US Patent 5,179,410).

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**Regarding claims 11 and 25:** Livingston in view of Lobiondo does not disclose expressly that said command comprises a request to purge an un-needed sheet to a specified one of the at least two output destinations of the print job.

Farrell discloses a request to purge an un-needed sheet to a specified destination (column 7, lines 7-12 of Farrell).

Livingston in view of Lobiondo is combinable with Farrell because they are from the same field of endeavor, namely the processing and formatting of print data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include said request to purge taught by Farrell into the structure of said command taught by Livingston. The specified destination would therefore be one of the at least two output destinations taught by Livingston, since said output destinations are the output destinations available in the printing system taught by Livingston. The motivation for doing so would have been to remove a page from the print job when said page has inadequate image quality (column 7, lines 7-12 of Farrell). Therefore, it would have been obvious to combine Farrell with Livingston in view of Lobiondo to obtain the invention as specified in claims 11 and 25.

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**Conclusion**

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson  
Examiner  
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13 July 2005



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